

CLEAN VERSION OF CLAIMS 1, 9, 11 AND 14

1. (Twice Amended) A reflective liquid crystal display (LCD) of high aperture ratio, high transmittance and wide viewing angle comprising:

a lower substrate;

an upper substrate opposed to the lower substrate and being separated therefrom by a selected first distance;

a liquid crystal layer sandwiched between the lower and upper substrates comprising a plurality of liquid crystal molecules;

a gate bus line and a data bus line formed on the lower substrate to define a pixel;

a counter electrode and a pixel electrode formed at an inner surface of the lower substrate wherein both electrodes are formed having a selected distance separating said electrodes and a selected width so that most of the liquid crystal molecules in upper portions of those electrodes are sufficiently driven by forming a fringe field between said counter and pixel electrodes;

a thin film transistor provided adjacent to an intersection of the gate bus line and the data bus line and transmitting a signal of the data bus line into the pixel electrode when the gate bus line is selected;

a polarizing plate disposed at an outer surface of the upper substrate;

a reflecting plate disposed at an outer surface of the lower substrate; and

a quarter wave plate sandwiched between the reflecting plate and the lower substrate, wherein both counter and pixel electrodes are made of a transparent conductor, and wherein the selected ^{first} distance between the upper and lower substrates is greater than the selected distance between the counter and pixel electrodes.

 $d_{uc} > d_{pe}$

9. (Twice Amended) A reflective liquid crystal display (LCD) having high aperture ratio, high transmittance and a wide viewing angle comprising:

a lower substrate;

an upper substrate opposed to the lower substrate and being separated therefrom by a selected first distance;

a liquid crystal layer sandwiched between the lower and upper substrates comprising a plurality of liquid crystal molecules;

a gate bus line and a data bus line formed on the lower substrate to define a pixel;

a counter electrode formed at each pixel of the lower substrate, transmitted with the common signal and having a plurality of branches diverged in parallel with the data bus line and at least a bar for connecting the branches, wherein the respective branches have a first width and are spaced and separated by a second distance;

a pixel electrode having a plurality of strips formed between the respective branches of the counter electrode, having a second width, and spaced apart by a third distance, and at least a bar for connecting the strips, wherein the second width is smaller in length than the second distance, and the first width is smaller in length than the third distance;

a thin film transistor provided adjacent to an intersection of the gate bus line and the data bus line and transmitting a signal of the data bus line into the pixel electrode when the gate bus line is selected;

a polarizing plate disposed at an outer surface of the upper substrate;

a reflecting plate disposed at an outer surface of the lower substrate; and

a quarter wave plate sandwiched between the polarizing plate and the upper substrate, wherein both counter and pixel electrodes are made of a transparent conductor,

wherein the first distance between the upper and lower substrates is greater than the second distance between the branch of the counter electrode and the strip of the pixel electrode, and

wherein the first and second widths are set such that the liquid crystal molecules in upper portions of the branch of the counter electrode and the strip of the pixel electrode are aligned by the electric field between adjacent branches and strips.

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c - d > l
d₁ > d₂

11. (Amended) A reflective liquid crystal display (LCD) having high aperture ratio, high transmittance and a wide viewing angle comprising:

a lower substrate;

an upper substrate opposed to the lower substrate and being separated therefrom by a selected first distance;

a liquid crystal layer sandwiched between the lower and the upper substrates comprising a plurality of liquid crystal molecules;

a gate bus line and a data bus line formed on the lower substrate to define a pixel;

a counter electrode formed at each pixel of the lower substrate, transmitted with the common signal and having a plurality of branches diverged in parallel with the data bus line and at least a bar for connecting the branches, wherein the respective branches have a first width and are spaced and separated by a second distance;

a pixel electrode having a plurality of strips formed between the respective branches of the counter electrode, having a second width, and spaced apart by a third distance, and at least a bar for connecting the strips, wherein the second width is smaller in length than the second distance, and the first width is smaller in length than the third distance;

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a thin film transistor provided adjacent to an intersection of the gate bus line and the data bus line and transmitting a signal of the data bus line into the pixel electrode when the gate bus line is selected;

a polarizing plate disposed at an outer surface of the upper substrate;

a reflecting plate disposed at an outer surface of the lower substrate; and

a quarter wave plate sandwiched between the polarizing plate and the upper substrate,

wherein both counter and pixel electrodes are made of a transparent conductor,

wherein the first distance between the upper and lower substrates is greater than the second distance between the branch of the counter electrode and the strip of the pixel electrode, and

wherein the first and second widths are set such that the liquid crystal molecules in upper portions of the branch of the counter electrode and the strip of the pixel electrode are aligned by the electric field between adjacent branches and strips.

Cy

14. (Twice Amended) The reflective LCD of Claim 13, wherein the dimensions of the first width and the second width are in the range of 2 to 8 μ m respectively.